Amendments to the Claims:

Please amend the claims as follows:

1-6. (canceled)

7. (currently amended) A ~~The~~ method of ~~Claim 1,~~ controlling a vehicle interior heating and air conditioning system equipped with actuators, comprising the acts of:

detecting interior conditions with an interior sensing system;

automatically detecting seat occupancy with an object recognition system on the basis of data received from the interior sensing system; and

adjusting automatically the heating and air conditioning system actuators as a function of seat occupancy to maintain desired interior conditions at at least one of a plurality of seats within the vehicle interior,

wherein

in the step of detecting seat occupancy, a head position is calculated by the object recognition system for at least one occupant, and

in the adjusting step, an optimized setting of the heating and air conditioning system for each detected occupant is automatically performed by actuators as a function of seat occupancy and head position.

8. (currently amended) The method of Claim 7 [2], wherein

in the adjusting step, if one of the plurality of seats is unoccupied by a passenger, the actuators of the heating and air conditioning system are operated

so that one of a fan intensity and an air distribution in the direction of the unoccupied one of the plurality of seats is adjusted.

~~in the step of detecting seat occupancy, a head position is calculated by the object recognition system for at least one occupant, and~~

~~in the adjusting step, an optimized setting of the heating and air conditioning system for each detected occupant is automatically performed by actuators as a function of seat occupancy and head position.~~

9. (currently amended) The method of Claim 7 [3], wherein

in the adjusting step, the actuators of the heating and air conditioning system are operated so that a temperature at an unoccupied one of the plurality of seats is adjusted toward the desired interior conditions.

~~in the step of detecting seat occupancy, a head position is calculated by the object recognition system for at least one occupant, and~~

~~in the adjusting step, an optimized setting of the heating and air conditioning system for each detected occupant is automatically performed by actuators as a function of seat occupancy and head position.~~

10. (currently amended) The method of Claim 8 [4], wherein

in the adjusting step, the actuators of the heating and air conditioning system are operated so that a temperature in an area of an unoccupied one of the plurality of seats is adjusted toward the desired interior conditions.

~~in the step of detecting seat occupancy, a head position is calculated by the object recognition system for at least one occupant, and~~

~~in the adjusting step, an optimized setting of the heating and air conditioning system for each detected occupant is automatically performed by actuators as a function of seat occupancy and head position.~~

11. (currently amended) The method of Claim 7 [5], wherein

in the adjusting step, the actuators of the heating and air conditioning system are operated during interior cooling so that a temperature at an unoccupied one of the plurality of seats is permitted to increase to reduce heating and air conditioning system energy usage.

~~in the step of detecting seat occupancy, a head position is calculated by the object recognition system for at least one occupant, and~~

~~in the adjusting step, an optimized setting of the heating and air conditioning system for each detected occupant is automatically performed by actuators as a function of seat occupancy and head position.~~

12. (previously presented) The method of Claim 8 [6], wherein

in the adjusting step, the actuators of the heating and air conditioning system are operated during interior cooling so that a temperature at an unoccupied one of the plurality of seats is permitted to increase to reduce heating and air conditioning system energy usage.

~~in the step of detecting seat occupancy, a head position is calculated by the object recognition system for at least one occupant, and~~

~~in the adjusting step, an optimized setting of the heating and air conditioning system for each detected occupant is automatically performed by~~

~~actuators as a function of seat occupancy and head position.~~